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ABSTRACT

This guide is designed to aid schools in establishing a school-wide or system-wide content-area reading program. Guidelines are offered for understanding the learner, and suggestions are given for assessing the needs, abilities, interests, and goals of students. Formulating instructional objectives and procedures includes planning approaches both for the whole class and for reading-ability groups. Suggestions for organizing material include locating books and other materials to supplement the textbook and developing and maintaining a materials resource file. The use of student tutors, adult volunteers, and aides is discussed. Areas specifically related to reading consultants include performing intensive diagnosis of readers severely disabled in content areas, giving special assistance within the school to content-area teachers, directing the content-area reading program within a school, providing in-service training in content-area reading, supervising and administering the system-wide content-area reading program, and evaluating content-area reading programs. (MKM)

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A GUIDE TO THE ORGANIZATION,
ADMINISTRATION, AND IMPLEMENTATION
OF A CONTENT-AREA READING PROGRAM

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David Memory
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Introduction

Content-area teachers complain that many students are unable to handle the reading assigned in their classes. These teachers point out, too, that few of their students do outside reading on topics related to the content areas. Even in the regular classroom activities, the students show very little enthusiasm for the reading they do. One apparent result of these problems is that many students fail to master the knowledge, skills, and understandings that they will need to achieve their occupational and educational goals.

Many educators have concluded that this is basically a reading problem. Some have suggested that efforts to solve this problem should be concentrated in beginning and remedial reading instruction. There is no doubt that greater efforts in these areas are called for; however, even the best beginning and remedial programs can not be successful in isolation. The efforts made in those programs must be reinforced through the reading done in content-area classes. For many students reading required in those classes not only fails to reinforce basic reading skills, but also it produces frustration and inactivity which tend to nullify gains made in the regular reading program.

Many content-area teachers who recognize these problems say that they cannot deal with them because they are not qualified to teach reading. They feel that the teaching of reading is too massive an undertaking for them to accept the responsibility for. There is no doubt that learning to read is a complex and poorly understood process; however, there are skills in every content area which any teacher can understand and in which he/she should provide instruction. In any content-area classroom an atmosphere can be maintained in which disabled readers can master the content and improve their reading skills.

Even if a school were to choose to bolster its remedial efforts, indications are that sources of funding will be fewer in the future for such programs. Already schools in many areas are depending less on these types of programs. Rather, they are concentrating their efforts in providing conditions in which students can improve their reading skills in content-area classes.

Schools and individuals that choose this approach must take into consideration a number of facts about their students.

Understanding the Learner:

No teacher needs to be told that there is a wide range of reading abilities in her class. In fact, the teacher of the average ninth-grade class can expect to have a range of ten years in reading abilities among his/her students. (Bond & Tinker, p. 51.) Even if content-area text books were written at the grade at which they are used, this range would pose a major problem. Studies indicate, though, that content-area textbooks are often up to four grade levels above the assigned level even with idea density not taken into consideration. (Johnson & Vardian) If idea density were taken into consideration, this discrepancy would be even greater. For students reading on grade level, this creates at least a substantial challenge. For those who have reading problems, this discrepancy causes constant frustration and confirms the failures of the past. While more able students may not feel frustrated, they nevertheless are rarely challenged because the teacher is overwhelmed by the diversity of abilities in her class.

No narrower a range is found in the interests of students in a content-area class. Identifying the interests of any one student is no easy task. However, it can produce benefits that are well worth the effort. Teachers know and studies indicate that students comprehend better if reading material in which they are interested. (Estes & Vaughan) This means that teachers need to take advantage of existing interests. Since older students are often more interested in informational material rather than imaginative material, the content-area teacher has a real opportunity in this respect. Where the interests of the student do not coincide with the content of the class, the teacher must try to create interest. This may be a challenging task for the concerned and resourceful teacher but certainly not an insurmountable one.

The teacher will also be aware of a variety of educational and occupational goals among his/her students. Therefore, the teacher must at the same time meet those basic needs and provide opportunities by which all students can meet their own special needs. This, too, will be a challenge, but it

will also be a chance to enrich the experiences of all students. The teacher can take advantage of the different perspectives that each student may bring to his/her class.

Given this wide variety of abilities, interests and goals, no teacher can expect to deal with the content-area reading problems through his/her efforts alone. This is at least a school-wide task and could be better handled through system-wide efforts. This guide offers an outline of a content-area reading program for a total school system. In it the tasks involved in developing and implementing such a program are identified and described. Job titles have been avoided since these vary from school to school and from system to system. For each task, this guide offers suggestions for the individual responsible for performing the task regardless of his/her official position. These tasks are not organized in the order in which they would be carried out but rather are listed from the classroom level up through the system level.

Assessing Needs, Abilities, Interests and Goals:

A. Assessing reading needs within the content-area classroom.

One of the first types of information a teacher needs is the readability levels of textbooks and supplementary materials available. These levels are an indication of the reading ability required to perform successfully in these books. The quickest and easiest means of assessing readability is the Fry graph (McCuaig). This procedure could easily be learned or carried out by adult volunteers or aides. The readability levels of these materials should be recorded and kept in a conveniently located file.

Another task is identifying the content-area reading skills essential at each grade level. It is important as well to take into account the instructional approaches used by each teacher. Teachers should be given time to compile a complete listing of these skills. An example checklist is provided below. It is a broad listing of learning skills that reflects the interrelatedness of the various means by which students gain, organize, and present information and eventually develop understanding. The subskills associated with each major skill have not been listed. These vary from one situation to another depending on the instructional approaches used by the teacher and would have to be identified and added by him/her.

CONTENT AREA READING SKILLS

Listening Skills —

- Following oral directions
- Focusing attention on orally presented material
- Identifying important points in orally presented material

Observing Skills —

- Focusing attention on visually presented material
- Identifying details in pictures, illustrations and other forms of visual presentations
- Noticing important features and occurrences in things observed

Reading Skills —

Vocabulary:

- Using context clues to identify word meanings
- Using sound-letter relationships to identify words
- Using prefixes, suffixes and roots to identify word meanings
- Recognizing the special content-area meanings of common words
- Interpreting figurative language
- Interpreting symbols

Comprehension:

- Developing an interest in material to be read
- Developing purposes for reading
- Recalling details
- Identifying main ideas
- Recalling sequential relationships
- Recognizing contrastive relationships
- Recognizing cause-effect relationships
- Recognizing fact and opinion
- Making inferences
- Drawing conclusions
- Predicting outcomes

Flexibility:

- Adjusting rate in relation to the difficulty of the material
- Adjusting rate in relation to the purpose for reading

Study Skills

Locational Skills:

- Using the table of contents, preface, glossary, bibliography, index
- Using a dictionary for finding and learning word meanings

Using references such as encyclopedias, almanacs, and atlas
 Using the card catalog and indexes to periodicals in libraries

Interpretation of Graphics:

Interpreting charts, tables, diagrams, and maps
 Interpreting typographical devices such as italics, bold print, indentations, listings, headings

Speaking Skills —

Interpreting punctuation and other writing signals in expressive oral reading
 Expressing one's own points of view or ideas
 Expressing ideas and information gathered from other sources
 Presenting a formal oral report
 Participating in demonstrations, dramatizations, role plays

Writing Skills —

Writing coherent sentences
 Writing unified paragraphs
 Taking notes from written sources
 Summarizing articles and other extended readings
 Outlining to organize ideas
 Writing essays and other extended papers based on information from several sources
 Taking notes from oral presentations
 Expressing feeling and ideas in poetry, short stories and other forms of creative writing
 Presenting information using mathematical and scientific symbols

B. Assessing student reading abilities in the content-area classroom.

The teacher can examine standardized test information as a tentative assessment of student abilities; however, this should not be the basis for final decisions regarding materials and approaches to be used.

What follows is one possible method of matching students to materials and approaches.

1. The teacher should administer to everyone a silent reading comprehension test on a passage from the main textbook. This test should be given under conditions similar to those that will exist during regular classroom instruction. That is, if introductory remarks regarding concepts and vocabu-

lary are to be used in instruction, they should also be part of the testing situation. A passage of approximately three hundred words for grades six and below or of approximately five hundred words for grades seven and above would be appropriate. The format of the questions should be the same as that most frequently used by the teacher, and they should require the same levels of comprehension-literal, inferential, or evaluative-that he/she emphasizes during instruction. (Smith and Barrett, p. 51)

2. Those students who score 80% or better on this first test should be given another silent reading comprehension test, but this one should be administered under independent conditions. In other words, the students should be given no orientation to the concepts and vocabulary in the passage. Students scoring 80% or better on this second test can be expected to handle the textbook independently.

3. Those students who scored less than 80% on the second test and those who scored between 70%-79% on the first test can be assumed capable of handling the textbook with teacher assistance.

4. A cloze test should be administered to the students who scored less than 70% on the first silent reading comprehension test. (Bormuth) A cloze test can be constructed by copying a passage taken from the middle of the text. The usual procedure is to delete every fifth word and substitute a blank of five strokes on the typewriter for each word omitted. The student supplies the exact word omitted. No synonyms or other substitutes are accepted. Students who score 40% or better on the cloze test are given an orally administered passage from the textbook. It should be approximately two hundred words in length. After listening to the passage, the students should be given written questions.

Those students who score less than 70% on this orally administered passage but passed the cloze test may have problems in test-taking. They may need instruction in test-taking strategies or may need less difficult material. Students who score 70% or better on this listening test and also passed the cloze test probably have problems in attending to written material. These students can be expected to function in the text with special assistance given to comprehension strategies.

5. Students who scored less than 70% on the first silent reading comprehension test and less than 40% on the cloze test should be given another silent test. This one should be constructed from material taken from a supplementary book and it should be administered under teaching conditions. Material on which a student can score 70% or better can be assumed to be

appropriate for that student. Students who score less than 70% could be tried in material of lower assessed readability. Those who cannot pass any of these tests will have to be instructed as non-reading students.

6. This assessment will serve for initial placement; however, observations made during instruction may indicate that changes in placement may need to be made. It might also be worthwhile to compare the readability of material to which each student is assigned with any recent standardized reading scores.

C. Assessing student interests in the content-area classroom.

1. The curriculum guide or the textbook can be used to identify items for an interest inventory. In this inventory students would be asked to rate their interest in topics chosen from the guide or textbook. The results could be used when organizing units of study, assigning projects, and recommending books.

2. It would also be helpful to devise a questionnaire to identify special talents, hobbies, and interests. These results, too, could be used in developing enrichment activities and in assigning projects and special responsibilities.

3. Another helpful practice would be the use of informal interviews to gain information concerning occupational and educational goals. In some situations, it would also be helpful to find out the student's reasons for taking the course.

D. Developing a file of assessment data.

A copy of the checklist of content-area reading skills should be kept for each student as a record of skills mastered and ones on which further instruction is necessary. All questionnaires and other records should be kept for easy reference.

E. Referring severely disabled readers for further diagnosis.

Students for whom no suitable reading material can be found should be referred for additional diagnosis. Other students whose performance on the reading assessment is not easily interpreted could also be referred for further testing.

Formulating Instructional Objectives and Procedures

A. Developing an overall instructional approach to accomplish objectives.

1. One of the best ways to organize instruction to accomplish specific objectives is to use the unit approach. In this approach content is organized, materials are gathered, and instructional activities are planned topically or thematically. (Olson & Ames)

An outline of the steps involved in the unit approach is given below.

- Introducing the unit
- Developing the unit
- Pupil-teacher planning for research
- Conducting research
- Culminating activities
- Evaluation

Before introducing the unit of study to the students, the teacher must use information regarding their abilities and interests to formulate general objectives and alternative instructional activities. The teacher then introduces the topic and describes these objectives and activities to the students. Within limits set by the teacher, the students select activities by which they will accomplish specific objectives developed mutually by the students and the teacher. Then critical concepts and vocabulary are introduced by means of discussions, special presentations, or audio-visual techniques. Based on assessments of reading abilities and interests, the students are assigned to materials and groups through which they will develop initial understandings of the content of the unit. Individually or in small groups, the students plan with the teacher the research projects by which they will develop a deeper understanding of the content. The types of materials and activities chosen will be based on the reading abilities of the students. The culmination of the unit involves individual and small group presentation of research findings. Both teacher and student evaluation of the unit will follow these presentations.

UNIT EVALUATION

The questions below should be answered by the teacher before he/she gets feedback from the students at the completion of a unit of study.

1. What materials were used by the students?
Rate each in terms of effectiveness.
2. What activities were participated in by the students?
Rate each as to its effectiveness.
3. What knowledge and skills were most effectively taught during the unit?
4. What topics were handled least effectively during the unit?
5. What materials, activities, and topics were enjoyed most by the students during this unit of study?
6. What materials, activities and topics were not enjoyed?
7. What approaches and work habits did the students demonstrate during this unit of study?
8. What changes in attitudes and ways of doing things have resulted from the activities in the Unit?

The following questions should be answered by the students during a class discussion or in the form of a questionnaire completed anonymously as a culminating activity for the unit. The questionnaire format should be used occasionally to alert the teacher to facts and feelings that might otherwise be overlooked. These questions may need to be rephrased depending on the grade level in which they are used. Rating scales should be developed.

1. What materials did you use during the unit?
Rate each material in terms of how much it helped you.
2. What activities did you participate in during the unit?
Rate each activity in terms of how much it helped you.
3. What topics did you learn most about in the unit?
4. What materials and activities did you enjoy most during this unit of study?
5. At which activities did you find that you worked hardest?
6. How many assignments were made? How many did you complete?
7. How wisely did you use your time during independent activities?
8. How much did you help in completing group assignments?
9. What methods for completing assignments did you find most time-saving and useful?
10. How has your work on this unit changed your attitudes and ways of doing things?

2. Daily activities within each unit should follow a format similar to the overall unit approach. This directed learning activity is designed to improve the reading comprehension and learning effectiveness of all students. For the majority who do not work independently, an important first step is preparation for reading. In this step students are introduced to concepts and vocabulary that they must understand in order to comprehend reading or listening assignments adequately. Then each individual or small group is given the materials, equipment, and other assistance that they will need for this learning activity. Before they begin their work, these students are given or they develop their own questions to be answered through their reading or listening activity. These questions should represent the different levels of comprehension that the teacher demands in the tests he/she gives. (Herber)

When the assignments have been completed the individuals or small groups come together to discuss the results of their investigation. When extensive vocabulary and special study skills have been required in these activities, further practice should be given and evaluation should follow. One of the best ways of providing this practice would be through structured exercises and short papers involving this vocabulary or through research projects in which these special study skills are used. Other enrichment activities might include guest speakers and field experiences. Written reports, presentations, and discussions that follow these activities can be one basis for evaluating progress. However, the teacher can also use written and orally administered tests.

B. Planning approaches for the whole class.

Even though the basic reading and listening activities are conducted individually or in small groups, the introductory and concluding phases of the unit approach can often be successful with the whole class. Particularly suitable for whole class presentations are activities designed to motivate interest and to establish overall purposes. From time to time during the unit the teacher will also find it helpful to discuss the relevance and application of the content with the whole class. Enrichment activities such as resource speakers, field trips, and movies or other audio-visual experiences could be used to best advantage with the whole class. To the extent

that all members of the class have covered the same content they can share their reactions and observations. Presentation of research projects might also be done before the entire class. Another activity for the whole group would be discussions of what the students have accomplished during each unit of study.

C. Planning approaches for the reading-ability groups.

The textbook should be given to all students whether or not they can make full use of it. It can be both a motivational device and a psychological boost for non-reading students.

1. Providing special approaches for students reading below the level of available materials.

For this group the introduction to learning activities should be done orally. The teacher will need to make special efforts to explain critical concepts and to generate interest in each assignment. Then student tutors, adult volunteers, or aides can be used to teach content-area sight words. Words can be chosen on the basis of student interest and should be placed on cards and maintained in student word files. Before the instructional assistant begins a learning activity, he/she should help the students develop questions to be answered during the activity. The tutor, volunteer, or aide can use tapes or other audio-visual materials or can read aloud to the students in this group. Tapes can be made of the chapters from the textbook by any of these instructional assistants. Having chapters read aloud not only serves to convey information but also helps to improve reading ability if the students follow along in their textbooks. (Langford, Slade, and Barnett) The more advanced students in the class can be assigned to write simple summaries of chapters from the textbook. These summaries can be taped or read aloud to the non-reading students. For students with limited reading ability, these summaries could serve as instructional material. After each learning activity, the content of the lesson can be discussed with the students. If a skilled assistant is available or the teacher has time, the language experience approach could be used to bring these students' ideas together in written form. (Wilson) Informal discussion should also be used to assess the accomplishment of lesson objectives. The formal assessment at the end of each unit should also be done orally. Throughout the

activities used with these severely disabled readers, a special effort should be made to follow through with the recommendations of special assistance personnel.

2. Providing approaches for students reading supplementary materials.

At the beginning of each unit, appropriate books for each student can be identified by using silent reading comprehension tests constructed from passages from books related to the unit. The books chosen should be ones whose readability levels are approximately the same as the reading levels of the students being tested. The tests should be administered under teaching conditions and the questions used should involve limited vocabulary. A 70% score indicates that the student can use a book successfully. Before each assignment important concepts should be explained and an attempt should be made to generate interest in the material. Then student tutors, adult volunteers, and aides can be used to teach content-area sight words. With this group an emphasis should be placed on structural analysis in teaching sight words. It would also be helpful for each student to maintain a word file. The instructional assistant should then work with these students to develop questions which will be answered during their reading. During this reading an assistant should be available to pronounce words and answer other questions. Informal discussions can follow each assignment to encourage the students to organize their thoughts about the content. Formal assessment should be by means of questions written with a limited vocabulary. Short answer items will not penalize students with limited writing abilities. The instructional techniques used with these students should be designed to reinforce any special remediation that has been conducted outside the regular classroom.

3. Providing approaches for students capable of handling the textbook with teacher assistance.

Before each unit is begun, the teacher should identify the specific content-area reading skills essential for successful performance in that unit. The teacher can refer to the checklist of skills when making this assessment. Each reading assignment should be preceded by an introduction of critical concepts and vocabulary and by discussion to generate interest and to develop questions to be answered through the reading. Students who have problems attending to written materials should be given special assistance in learning to use purposes for their reading and periodic self-checks of their compre-

hension during assignments. Instruction in special content-area reading skills may either precede or follow the assignments in which they are used. The introduction of new skills can best precede assignments, but practice in skills previously learned can be used as a follow-up activity. Group discussion of the content should come before written assessment of the accomplishment of lesson objectives. The teacher should make a point of using a variety of types of questions for evaluating student progress. To encourage the mastery of skills and content, the teacher could have these students serve as tutors for the students unable to read the textbook. This responsibility will generate both motivation and self-confidence.

4. Providing approaches for students capable of handling the textbook independently.

The teacher can assign sections of the textbook to be read independently and can use frequent written tests to motivate and assess performance. Written summaries to be read by less advanced classmates could take the place of formal tests. However, these students should spend most of their time on special projects based on assessed interests. These projects should be short and well defined or should be broken into sections to be completed on schedule. One objective of each project should be the mastery of a content-area reading skill. The teacher can use the checklist of skills in identifying ones in which these students need additional work. The librarian could provide assistance for students learning the more advanced content-area reading skills. The assessment at the end of each project should deal both with the content covered and with the skills used. A report to the whole class or a written summary to be read by other students could take the place of a formal test. These students could also serve as tutors within or outside the class.

Organizing Materials Within the Classroom for Use in the Content-Area Reading Program

A. Locating books and other materials to supplement the textbook.

Each school and total system should have an individual responsibility for organizing existing materials and ordering new ones for the program. However, each teacher must be aware of the procedures for getting existing materials or requesting new ones. One book that could be of assistance in both respects is Spache's Good Reading for Poor Readers. Within each school

the teacher should work closely with the librarian or department chairman to insure that materials are used to maximum advantage.

If the teacher finds that sufficient materials are not available at either the school or system level, then there are three approaches she/he can use until better materials are made available. With the permission of the administration, he/she can notify parents and interested groups to get their help in locating books and other materials that can be used in the program. The teacher can also cut up old textbooks to make paperbacks for students who cannot read the main textbook. As projects in English or other classes, students can be assigned to write letters requesting free and inexpensive materials. A list of source guides for such materials is given below. (Roberts and Rankin)

— FREE MATERIALS SOURCE GUIDES —

Catalog of Free Teaching Materials, Gordon Salisbury, P. O. Box 1075, Ventura, California 93001. \$3.25

Educators Guide to Free Films, John W. Diffor and Mary F. Horkheimer. Educators Progress Service, Randolph, Wisconsin 53956. \$11.75

Educators Guide to Free Filmstrips, John D. Diffor and Mary F. Horkheimer. Educators Progress Service, Randolph, Wisconsin 53956. \$8.50

Educators Guide to Free Tapes, Scripts, and Transcriptions, Walter A. Wittich and Raymond H. Suttles. Educators Progress Service, Randolph, Wisconsin 53956. \$7.57

Free and Inexpensive Educational Aids, (4th ed.), Thomas J. Pepe, Dover Publications, 180 Varick Street, New York, New York 10014. \$2.00

Free Teaching Materials: Classroom and Curriculum Aids for Elementary School Science, Roger J. Raimist and Rose A. Mester. (ED 034 687) ERIC DRS, Box O, Bethesda, Maryland 20014. \$3.29

Guide to Free-Loan Films (16mm) for Entertainment, Serena Press, 70 Kennedy Street, Alexandria, Virginia 22305. \$3.95

Guide to Free-Loan Training Films (16mm), Serena Press, 70 Kennedy Street, Alexandria, Virginia 22305. \$5.95

Selected Free Materials for Classroom Teachers (4th ed.) Ruth St. Aubrey. Fearon Publishers, 6 Davis Drive, Belmont, California 94002

Sources of Free and Inexpensive Educational Materials, Esther Denver.
Esther Denver Company, Rt. 5, Box 1, Grafton, West Virginia 26354. \$6.00

B. Developing and maintaining a materials resource file.

This file should include a card on each book and each other piece of material available. On this card should be notes on the readability level of the book or material and the types of students and activities for which it is best suited. Also included should be tests used in assessing the suitability of each book for individual students.

Another section of the file could include cards on resource persons and field experience locations that have been used with previous classes.

Using Student Tutors, Adult Volunteers and Aides in the Content-Area Classroom.

A. Insuring that instructional assistants are competent in the areas in which they provide help.

The teacher should first make certain that each assistant assigned to him/her understands the content-area reading program in his/her classroom. With this overall view in mind, the teacher and each assistant can decide the ways in which the assistant can best contribute to the program. When tentative assignments have been made, the teacher should provide thorough training in the techniques and procedures which the assistant will use. During a trial period the assistant should demonstrate both competence and confidence in the roles to which he/she has been assigned. Constructive feedback should be given regarding his/her trial performance. Individuals found unsuited for any roles within the classroom should be referred to the school coordinator of aides and volunteers for another assignment. Assistants who have proved their competence in training should express their readiness before they are given full responsibility in their roles.

B. Making effective use of instructional assistants.

Individuals who provide assistance on a continuing basis should be assigned responsibilities based on their interests and observed abilities. The performance of these assistants should be observed and positive feed-

back should be used to motivate cooperation and dependability. Performance will be most effective if the assistant understands clearly what his/her responsibilities are. (Vick; Fillmer)

Assistants such as student tutors and adult volunteers who do not serve on a regular basis must be briefed before each day's activity. Specific assignments should be in areas in which these assistants have received adequate training and in which they have demonstrated competence. Teachers should have plans ready for each activity before the assistant arrives and should insure that those plans are understood before the assistant is left to work independently. Teachers should keep informed of what the assistant is doing and be available to give help when needed. Abundant but justifiable praise should be given at the end of the day to insure continued assistance. (Raim; Olsen; Dryer)

Reporting the Effectiveness of the Content-Area Reading Program

A. Keeping records of student performance.

A log of classroom activities and samples of student work should be kept so that they can be shown to administrators, supervisors, and parents. The log should include updated information on classroom organization, each unit plan, and the major elements of the daily plan. This log can provide evidence of the teacher's efforts to maintain a content-area reading program based on student needs and abilities. A master skills checklist indicating the areas of concentration for each reading-ability group should be kept with this log.

B. Reporting student progress.

If possible a narrative should be used for reporting progress. This report should include a statement of the reading level of the student, the skills he has mastered during the marking period, and a description of his/her participation and effort.

If letter grades are reported, the reading level of the textbook in which the student does his/her work should be noted. At the high school level a decision will probably have to be made about a cutoff grade for students not able to read the assigned textbooks.

C. Informing others of the effectiveness of the program.

Teachers who want continued support from administrators, supervisors, and parents should describe to them the ways in which the program contributes to student progress. Every available opportunity should be used to inform these people of the importance of multi-level materials, instructional assistants, and community-provided resource activities.

Performing Intensive Diagnosis of Severely Disabled Readers in Content Areas

A. Receiving and processing referrals from content-area teachers.

The person conducting this diagnosis should insure that he/she has complete information about the student's strengths and weaknesses in the content-area classroom. The referring teacher should supply both formal assessment data and informal observations. The diagnostician should request information from teachers other than the referring teacher concerning the student's performance in their classes.

B. Making classroom observations.

The diagnostician should spend time observing the work of the student in several content-area classrooms. These observations will help the diagnostician formulate recommendations that will lead to efficient remediation and successful transfer of skills to the content-area classroom.

C. Developing diagnostic instruments related to content-area skills.

The diagnostician should meet with the referring teacher to identify the skills and the reading level necessary for successful performance in his/her classroom. Materials and questions used by this teacher should be the basis for developing diagnostic instruments relating specifically to content-area skills. Through his/her meeting with the referring teacher, the diagnostician should develop an idea of the type of remediation possible in the content-area classroom. Then the diagnosis can be conducted in terms of what is demanded and what remediation is possible in that classroom.

D. Making recommendations to the content-area teacher and special reading teachers.

Recommendations to the content area teacher should involve remedial

techniques, adjustments in instructional approaches, and materials suitable for instruction. The diagnostician might find it helpful to demonstrate techniques within the content-area classroom.

Recommendations to the special reading teacher should be designed to facilitate the transfer of skills improvement to the content-area classroom.

F. Following up to assist in the implementation of recommendations.

The diagnostician should make visits to classrooms and remedial settings to observe and share ideas about the instruction. Conferences with teachers can follow these visits to deal with questions which have come up.

Giving Special Assistance Within the School to Content-Area Teachers.

A. Assisting teachers in planning and implementing the content-area reading program within the classroom.

The special reading teacher should be able to help the classroom teachers to assess the reading skills requirements of content-area courses. The skills checklist can be helpful in identifying these demands. Assistance should be available for assessing the reading levels and skills in content-area classrooms. This could involve the construction of silent reading tests and other diagnostic instruments.

The special reading teacher could also help the classroom teachers in planning instructional procedures. Reading and library personnel could both be used in locating and making materials to be used by the content-area teachers.

B. Providing remediation for severely disabled readers.

Remediation outside the content-area classroom should be designed to develop skills for classroom performance. Special efforts should be made to insure that skills developed during remediation will be transferred to the classroom setting. The remedial techniques used should be ones that require student performance that can be reinforced in the content-area classes. This will be easier if the materials chosen and student responses required are similar to those used in the classroom. Extensive work in basic sight vocabulary and the use of initial consonants with context clues will probably be the most efficient approach to developing word recognition skills. Practice in answering a variety of questions from content-area

related passages should improve student performance in that area. The use of the language-experience approach would reinforce sight vocabulary, would improve comprehension, and would give practice in writing skills.

The benefits of remediation will best be maintained if the remedial teacher provides follow-up in the content-area classroom. Classroom visits and conferences with teachers can be used to offer suggestions on ways to reinforce the skills developed through remedial instruction.

C. Participating in in-service training.

When staff development sessions are conducted within a school, these staff members can assist in demonstration teaching and with training in assessment procedures.

D. Serving as a liaison between teachers and supervisors.

The special reading teacher and the librarian can sometimes serve as a channel of information between classroom teachers and supervisory and administrative personnel. Their broad perspectives on student abilities and materials needs can be useful in dealing with issues needing immediate attention.

Directing the Content-Area Reading Program Within a School.

A. Providing information on the need and desire for a school-wide content-area reading program to the standing reading committee of the school system.

The person who assumes the leadership role should get informal feedback from the teachers regarding their interest in developing a content-area reading program. The information gathered should also include initial assessments of the needs and abilities of students in content-area classes. The most valid quick means of assessing reading level is probably the Botel Word Opposites Test. It is a group administered test that gives a grade equivalent score for each student. Time should be provided for teachers to become thoroughly familiar with the test and its administration and scoring. For students who score below the second-grade level on the Botel, the Slosson Oral Reading Test could be used for a more accurate grade-equivalent score. It is an individually administered series of graded word

lists. If this procedure is not suitable, existing recent standardized test scores could be used. However, such scores are often unreliable and should be evaluated in relation to teacher observations. The grade-level scores obtained on the Botel or the Slosson should then be compared to the approximate readability levels of the materials in which the students will work. It can be assumed that the readability level of a content-area textbook is at least one grade level above that designated by the publisher.

This informal information and these assessment data should be organized by the principal or the school-level reading director to be presented to the standing reading committee of the school system. This information will be used in determining the need for an organized content-area reading program.

B. Generating teacher interest for participation in the system-wide content-area reading program.

If the standing reading committee decides there is a need for a system-wide content-area reading program, each principal or other designated leader within each school should make efforts to generate interest in such a program. Demonstrated teacher interest will be one criterion for deciding whether or not to plan and implement such a program. Schools in which the most interest is shown may be chosen for pilot programs or studies.

It should be pointed out to teachers that outside funds will most likely be available if there is a formal system-wide commitment to such a program. These funds could be used to provide teachers with needed instructional assistants, materials, and in-service training. Teachers and other staff members with particular influence within the faculty should be identified and their support should be solicited first. Then they can be used in spreading interest throughout the faculty. Initial support is essential if the program is to begin on a firm foundation.

C. Working with teachers to plan the school-wide content-area reading program.

If there is a system level decision to develop such a program, the principal in each school should begin by creating an atmosphere in which the teachers feel that their time and talents will be put to the best possible

use. The director of the school-wide program should recognize that teachers, not programs or approaches, will solve reading problems in content-area classrooms. (Rutledge) That means that teacher input should be the heart of the planning process.

To insure that teacher enthusiasm will be maintained, the school-wide director should aim toward a series of program objectives that will facilitate evaluation and enable teachers to see the results of their efforts. The basis for developing and ordering objectives should involve their importance, the ease with which they can be accomplished, and the extent to which they can be achieved solely through efforts within the school. For instance, a first-year objective could be the organization of existing content-area reading materials and the restructuring of procedures for their use. Department chairpersons might be assigned to insure that each content-area classroom has available the best combination of multi-level reading materials from existing inventories. The librarian and teachers could work together to develop reading lists for each course and procedures by which students can have ready access to these books. The principals and teachers could organize a program for gathering content-area related reading materials from the community and from organizations that supply free and inexpensive materials. The teachers could work together in assessing the readability levels of books used in several classes. Within each class the teacher could begin developing his/her resource file and organizing the materials for appropriate and convenient use. At several points during the year and at the end of the year, the participants in the program can assess the degree to which they have achieved the materials objectives developed during the planning stage. The same procedures could be used in relation to other major areas of program objectives during the same or a lengthened time frame. If the schedules for implementation are reasonable, success in adhering to them will maintain confidence and enthusiasm for the program.

D. Assigning specific responsibilities for implementing the school-wide content-area reading program.

Though planning should be done cooperatively, the director must eventually assign specific responsibilities for implementation of the

program. If anyone is given additional responsibilities as a result of the program, he/she should be relieved of existing responsibilities. This would insure that the program is not built on the sacrifice or unrewarded efforts of a few individuals. Assignments made on the basis of strengths and interests will increase enthusiasm for the program and will increase its chances for success. If assignments are made clear to the entire staff, the tasks can be carried out most efficiently and questions regarding responsibilities can be resolved with the least interruption to the on-going program. (Rauch, 1974 a) For instance, someone should be designated to maintain a file of community resource speakers and field experience locations for use by the entire school. Also, because of the importance of the library to the program, the responsibilities of the librarian should be carefully considered and clearly defined.

E. Organizing and maintaining the content-area materials resources within the school.

Even after responsibilities have been assigned, the school-wide director of the program must maintain continuing knowledge of the adequacy of the materials and the procedures by which they are put to maximum use. As needs arise, he/she must be able to fill them quickly and with the least disruption to the instructional program.

F. Coordinating the special assistance services within the school.

The principal or director of the reading program must insure that diagnostic services and remedial programs and facilities can be utilized efficiently by content-area teacher.

The use of student tutors, adult volunteers, aides, and resource persons must also be coordinated at the school-wide level. Brochures describing the program and listing ways in which community members could participate in it should be sent out to parents and community organizations. This brochure should contain a brief questionnaire by which the individuals contacted would indicate their ability and willingness to assist in the program. A schedule of training sessions should be provided in the brochure. This approach could be supplemented by personal appearances by staff members at civic group meetings and other community gatherings. (Gold and Taylor) At

these community meetings and at orientation sessions at the school, the coordinator of the program and veteran volunteers should speak and show pictures and videotapes of volunteers in action. School-wide training in the techniques that are central to the program should be provided for adult volunteers and student tutors. This training should prepare these instructional assistants well before they go into the classrooms and it should serve as a basis for making assignments and for deciding who will be retained as participants in the program. (Hickman) Even after the assistants have been assigned to classrooms, there should be continuous school-wide supervision of their efforts. The responsibilities of volunteers should be made clear from the start and they should understand that their assistance will be most beneficial if they cooperate within the program. It means that once they accept certain responsibilities, they will adhere to time schedules and respond to the needs of the teachers and students to which they are assigned. It is usually found that on-going responsibilities are assigned to aides and that short-term needs can be most efficiently met by adult volunteers. However, all instructional assistants should be clearly aware of their significance in the program. Particularly with volunteers, daily acknowledgement of services is important and a year-end recognition of their contributions can insure continued participation by them and can spread interest through the community. All instructional assistants should be given a chance to evaluate the effectiveness of the program.

G. Receiving and responding to feedback about the content-area reading program from students, teachers, parents, and other members of the community.

The principal or director of the program should let students, teachers, parents, and other members of the community know that their comments about the effectiveness of the program are essential if it is to continue to be effective and if it is to continue to be improved. Questionnaires for this purpose are provided later in this guide; however, informal discussions can generate equally useful information. A literacy class might be offered in the school to attract parents and other community members who might otherwise feel isolated from the program. It is important that people who make suggestions be notified that their suggestions are being given consideration and be shown how the program is being improved.

H. Channeling information concerning the content-area reading program from system-level personnel.

One reason to have an appointed head or director of the content-area reading program within the school, whether it be the principal or some other staff member, is to insure that the system-level staff knows whom to contact when information needs to be passed to the individual schools. By being present in the school, the director of the program can keep the system-level staff continually informed of the needs of the local school personnel. Teachers who feel that their needs and interests are not adequately presented at the system level are less likely to work enthusiastically in the program. The director should take an active role in insuring that this communication is maintained.

I. Assessing teacher competencies in content-area reading and providing assistance and training to deal with deficiencies.

For the director to be able to function effectively as an evaluator, he/she must be able to perform competently as a teacher of content-area reading. This evaluation should involve the analysis of instructional settings with an aim of offering guidance for increasing the learning that is taking place there. For the director to be able to analyze those settings, he/she must understand the processes that are in operation. (Rauch, 1974 a)

One way of developing such competence is to participate as a teacher in all in-service training that precedes the implementation of the program and in any on-going training. Frequent classroom visitation and participation in classroom activities with students are other ways to maintain an understanding of the dynamics of the program. All of these efforts will help the director develop rapport and enable him/her to function better as an evaluator and guide.

Analysis of instruction in content-area classrooms should be directed toward identifying specific strengths in the approaches and activities of each teacher. This will make positive feedback easier and will make it possible to use different classrooms as examples of effective instruction in content-area reading. From time to time, teachers whose successful approaches and activities have been observed can be allowed to discuss or demonstrate them in faculty meetings. This will both reward good instruction

and set examples for other teachers to follow. Comments on ineffective techniques should be specific and should be followed by clearly defined and practical suggestions for improvement.

J. Supervising the evaluation of the content-area reading program within the school.

Suggestions for instruments that can be used in this evaluation are discussed later in this guide. The director of the school-wide program should make adequate time available for the evaluation. He/she should insure that the teachers are familiar with the tests, that they are administered correctly, and that conditions during testing are conducive to representative performance by the students.

K. Initiating adjustments in the school-wide content-area reading program.

Any recommendations for adjustments in the program should be based on sound evaluations using both formal and informal data. Before recommending major changes, the director of the school-wide program should insure that enough time has elapsed to allow its effects to be evidenced in the performance of students. Also, any adjustments should be based on input from the entire school staff.

Providing In-Service Training in Content-Area Reading.

A. Planning staff development based on assessed needs.

In planning in-service training, the expressed interests and needs of teachers should be given primary consideration. That means that they should be directly involved in the planning. The aim of this planning should be the formulation of well defined objectives that are designed to produce the results that the teachers consider to be most important. (Drabra) The ideas on assessment and instructional approaches offered earlier in this guide could be used in planning in-service training.

If possible, college credit should be arranged for participants. In any case, though, in-service sessions should be scheduled during normal work hours with substitutes provided or the teachers should be paid for the extra time devoted to the training. (Bullerman & Franco)

Group size for in-service training sessions should be limited and can be based on expressed needs and interests or on the content area taught.

The leader of the in-service training should be someone who can provide follow-up assistance to teachers during their efforts to apply in their classroom what they learned during the training.

B. Making effective use of consultants.

Services of a consultant should not be requested unless there is a consensus of the standing reading committee that these services are needed. Only individuals who can provide follow-up assistance should be considered as consultants. Once the decision has been made to use a consultant, a statement should be formulated of what is expected from him/her by teachers and other school personnel. The consultant should be given an accurate view of the instructional situations in which his/her guidance and recommendations will be followed. This will enable him/her to gear these services to the demands of these specific situations. Before the sessions with the consultant begin, the school personnel should get information about what he/she intends to do. Through full participation in those sessions, they should stay aware of what is actually being done. This will enable them to provide feedback and help him/her make adjustments when needed. (Harker)

If there is resistance toward the content-area reading program among some school personnel, the expertise and outsider's status of the consultant might be used to help resolve the problems. In general, consultative efforts should be directed toward helping the program get off to a strong start.

C. Conducting initial in-service training.

The over-all format and the methods of presentation should reflect the preferences of the teachers involved in the training. Most research indicates that teachers prefer demonstration teaching and simulation activities. (Rutherford and Weaver; Drabra; and Osborn). For instance, the directed learning activity described earlier could be demonstrated using a difficult passage with the teachers acting as students. Another activity that most teachers respond well to is the production and construction of materials that can be used in the classroom. (Cunningham) In any case, the activities should be varied and involve actual participation by teachers.

The effectiveness of the training should be evaluated both through activities during the sessions and through follow-up observations and questionnaires. The evaluation conducted during the session should be designed to show the teachers that they have improved their skills and understanding. Pretesting and posttesting or the evaluation that follows demonstration teaching and simulation activities can often accomplish this. In-class observations should be designed both to evaluate the effectiveness of the training and to provide follow-through assistance.

D. Providing on-going in-service training.

The director of the program or someone else within the school should be responsible for staying informed of the needs that can be met through on-going in-service training. This individual should keep the system-level director informed of observed needs. If these are great enough, system-wide training could be planned. Otherwise each school can be responsible for planning and conducting programs based on their individual needs.

Active participation by the teachers will be more likely if the sessions are designed to deal with needs as they are perceived by the teachers. (Cruickshank) That means that the teachers should be involved in the planning of these sessions. It is usually best to conduct such training during school hours and to provide substitute teachers. Particularly if these are single-session efforts, the person chosen to conduct the training should be someone who already has credibility with the teachers.

Such sessions should take advantage of the ideas and resources that can be provided by the teachers themselves. They can be held in classrooms within the school, and different teachers can be called upon to demonstrate approaches and activities they have found to be successful. This will lend credibility to the presentations and it will increase the chance that the ideas offered are reliable and practical. Also, it will serve to recognize success and hard work.

As with any in-service training, it is important to assess what has been accomplished by such sessions. This will provide a basis for improving future training and can help to convince teachers to use what they have learned.

Giving Special Assistance on a System-Wide Basis in the Content-Area Reading Program.

A Providing special expertise during initial planning of the program.

Supervisors in such areas as gifted education, learning disabilities, and education of the mentally retarded and the supervisors in the various content areas should be called upon to offer input during the planning and beginning stages of the program. Their special perspectives will be essential to insure that the individual needs of diverse students and the varying demands of the different content areas are taken into consideration.

B. Providing materials support for the system-wide content-area reading program.

Someone at the system level should be responsible for staying informed of the immediate materials needs and inventories in the various schools. Materials not being fully used in a school can be shifted to other schools where they can at least temporarily meet existing needs. This person should stay informed of the teacher-made materials being used in the system and be prepared to assist teachers in constructing such materials.

C. Providing instructional assistance for the system-wide content-area reading program.

At least one person on the system level staff should stay informed of any needs for instructional assistance within the individual schools. These needs can be met either through sessions with entire faculties or with individual conferences or visitations. Staying informed of these needs through frequent direct contact with the teachers will make teachers more willing to ask for assistance and more receptive to suggestions. (Harris, Ben M. and Wm. R. Hartgraves) Assistance could be in the form of demonstration lessons or the preparations of testing materials.

D. Providing special diagnostic services for the system-wide content-area reading program.

If each school does not have complete diagnostic services, there should be procedures at the system level for providing them. The individual responsi-

ble for these services should be available for in-class observations to make tentative assessments of reading problems related to the content areas. He/she should also be prepared to make suggestions for dealing with these problems within the classroom setting, or through services provided elsewhere within the system.

Supervising the System-Wide Content-Area Reading Program.

A. Providing expertise in instructional procedures and curriculum design during initial planning of the program.

The director of reading or another system-level staff member should be fully qualified to deal with all instructional and curricular issues related to the program. In formulating recommendations to be presented during the initial planning, this person should rely heavily upon information and suggestions generated within the individual schools. These suggestions might relate either to the goals of the program or to procedures for accomplishing them. Ideas coming from the individual schools will more likely be implemented enthusiastically and successfully than ones imposed from above. However, the ideas presented within this guide can serve as a structure upon which the specific insights and preferences of local school personnel can be organized. Additional suggestions can be found in the following sources:

The Journal of Reading

The Reading Teacher

Ellen Thomas and H. Alan Robinson. Improving Reading in Every Class. Boston: Allyn and Bacon, Inc., 1972.

Harold Herber. Teaching Reading in Content Areas. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970.

James Laffey, ed. Reading in the Content Areas. Newark, Del.: International Reading Association, 1972.

Daniel L. Shepherd. Comprehensive High School Reading Methods. Columbus, Ohio: Charles E. Merrill Publishing Co., 1973.

The bibliography that is provided at the end of this guide contains other articles that would be helpful in planning and implementing a system-wide content-area reading program.

B. Assessing and helping meet the personnel needs of the program.

Someone associated with the content-area reading program should be responsible for staying informed of personnel needs and making recommendations for additional personnel if needed. This person should recommend applicants on the basis of their qualifications and willingness to function within the program. One aid in making good recommendations would be to give the best applicants tours of the more impressive content-area classrooms. This would both kindle the enthusiasm of good teachers and give all applicants a realistic basis for assessing their suitability for the job.

C. Assessing and helping meet the materials needs of the program.

Only someone with full understanding should be responsible for making decisions regarding the purchase, organization, and distribution of content-area materials. These decisions should be based on complete knowledge of the published materials available and should incorporate recommendations of supervisors in each of the content areas.

Someone in each content area should be assigned to read the professional journals in that area and stay informed of newly available books and other materials. Helpful publications in this respect are:

Language Arts

English Journal

Social Education

Arithmetic Teacher

Mathematics Teacher

Science Teacher

Another good approach is to write directly to the publishers of content-area materials for current catalogs and placement on their mailing lists.

In evaluating available published materials for purchase, the system-level staff should give strong consideration to the recommendations of local teachers and other school personnel. These recommendations could take the form of specific materials that have been successful or of features of materials that the teachers have found to be important. These materials should be

evaluated in relation to student abilities, needs, and interests and in terms of the appropriateness of the materials for the content-area reading program.

Materials that have not been tried out and cannot be evaluated well could be ordered in single copies or single sets and then could be used in individual schools on a trial basis. These and all other materials available at each school should be listed in a system-wide inventory of materials. This will enable teachers and other school personnel who wish to examine these materials to know where they can be found. This listing should include information about the cost and the reading and interest levels of the materials and brief comments from teachers who have used them. (Smith, M. F.)

D. Keeping school personnel informed of funds available within the system.

Someone involved in the supervision of the content-area reading program should be responsible for staying informed of the availability of funds within the system and of the procedures by which individual schools can apply for them. This person should then pass on to the schools the information they will need to make use of those funds. School-level directors of content-area reading programs should be encouraged to make their needs for funding known and should be assisted in writing convincing requests and proposals. When outside funding becomes available, this individual should make recommendations for distribution based on need and the potential for effective use.

E. Staying informed of innovations in the field of content-area reading.

A member of the system-level staff should be responsible for staying informed of new ideas and developments in content-area reading. This type of information is most readily available through such journals as The Journal of Reading and The Reading Teacher and through meetings of the International Reading Association and other educational organizations. Ideas gathered about content-area reading could be described in newsletters or in special leaflets. These should be written and designed so as to capture immediate attention and generate interest that will be transformed into effective classroom application. Such newsletters and leaflets can communicate useful ideas and demonstrate to teachers that the system-level staff is contributing to the success of the content-area reading program.

F. Gathering data for evaluating the system-wide content-area reading program.

1. Even before the formal assessment of the content-area reading program is carried out, members of the system-level staff should gather information about the progress being made in implementing the program. Conversations with teachers and students can give ideas about the success of the program. Librarians can give feedback about the possible increases in the use of content-area books. Other school personnel who work with the school-wide program can offer their evaluations regarding the effectiveness of the program. Information gathered in this way can guide careful analysis of formal data gathered later.

2. One part of the formal evaluation of the program would involve vocabulary lists in the different content areas. One means of constructing these lists would be to take random samples from the word lists of graded series in each of the content areas. Words chosen in this manner that do not seem common for the level at which they are used should be moved elsewhere in the list or should be eliminated. If graded content-area series are not available, several teachers in each content area should work together to develop a vocabulary list that reflects the place at which important content-area words are most often introduced. For the lower levels a standard vocabulary list such as the Harris-Jacobson List should be consulted for selecting content-area words. In any case, teachers with experience in the content area will have to use their good judgment in designating approximate grade levels for the list in that area.

For each content area list ten words should be selected at each grade level from the second through the fourteenth grades. The student would demonstrate his/her knowledge of each word by selecting the meaning of the word from among four synonyms or simple definitions. These stimulus words should be used in contexts that are specific to the content area, or special care should be taken to insure that only one alternative for each item is correct. This is essential because many important content-area terms are common words with special meanings.

The student should begin each content-area vocabulary list three grade levels below his reading level. If no information is available on the reading level of the student, he/she should begin with the lowest list. The first level at which he/she scores 60% on the vocabulary list is the level at which he/she should begin the reading passages.

Each student should be allowed to attempt every vocabulary item at and above the level at which he/she begins the list. The total number of items he gets right is his raw score. When pretesting and posttesting are used the student should begin with the same list both times.

3. Another part of the formal evaluation of the program would be conducted by means of graded reading passages for each content area. The passages selected should range from the second-grade level through the fourteenth-grade level to correspond to the readability levels of materials available and to the ability levels of students who use those materials. Passages of about two hundred words should be selected for grades two through six, and passages of about four hundred words should be used for grades seven through fourteen. If available, graded series from each content area should be used for selecting these passages. Passages taken from other books should be chosen to conform in style and subject matter to the materials being used in each content area. The readability level of each passage should be assessed so that it can be placed appropriately in the sequence of selections. The Spache Readability Formula should be used for passages at the second- and third-grade levels. (Spache) For passages at higher levels, the Dale-Chall Readability Formula should be used. (Williams)

Since students are familiar with a multiple-choice format, this should be used for assessing comprehension of the passages. The questions should test comprehension of the passage and should not be answerable if the passage has not been understood. These questions should test the same levels of understanding that have been emphasized throughout instruction. An alternative assessment of comprehension would be use of the cloze procedure. If this procedure is chosen, passages should only be one hundred or two hundred words in length. Every fifth word in the passage should be deleted and only exact words, not synonyms, should be accepted.

Each student should begin reading in the passages two grade levels below his estimated reading level. He/she should continue reading passages until scoring less than 70% on two consecutive multiple-choice tests or less than 40% on two consecutive cloze tests. If pretesting and post-testing are used, the total number of questions correct on the pretest passages or total number of blanks filled in on the cloze passages could be used as a raw score. Posttesting should begin at the same level as the pretesting and the raw score should be computed from that point.

4. The third part of the formal evaluation should be based on a general knowledge test in each content area. Multiple-choice items with simple vocabulary should be used to avoid penalizing poor readers and poor writers. At grades two through six, four questions should test knowledge of details, four questions should test understanding of concepts and principles, and two should test the ability to use content-area reading skills. At grades seven through fourteen, the number of questions should be increased to eight, eight, and four. The sequencing of these items should reflect the order in which information and skills are introduced in each content area. A graded series would be helpful in making these determinations; however, teacher judgment will be essential at many points.

The student should begin answering these questions at the same level at which he/she began the reading passages. He/she should be allowed to attempt every item at and above that level.

The total number of items correct is the student's raw score. Again, when pretesting and posttesting are used, the students should begin at the same level both times.

5. In such areas as science and social studies where courses at different levels deal with entirely different content, the reading passages chosen should involve only very general concepts and information. A single word list spanning grades nine through fourteen and a single set of content questions spanning the same levels should be constructed to test knowledge of words and information from all of the specific courses. That means that only a raw score on vocabulary and a raw score on content knowledge can be obtained from the ninth grade level up. For instance in science the vocabulary list should include words from biology, chemistry, physics, earth science and any other science courses offered with no grade level designation for any words.

6. The same procedure could be used to assess progress in content areas in which an isolated course rather than a series is offered. A list of important words and a series of content questions could be constructed for each of these courses. These tests should be long enough for progress to be demonstrated by pretesting and posttesting. A series of reading passages similar to the ones described above could be constructed for these courses if the teachers want to demonstrate improvement in general reading ability in material in those areas.

7. Another area of evaluation should involve the students' attitudes. A series of items such as the ones below should be administered anonymously as a pretest and as a posttest. A five-point Likert scale should be used with the responses being "none," "very little," "some," "a good bit," "very much." These would be scored zero to four. A total score from all items could be used for assessing attitude change during participation in the content-area reading program.

How much interest do you have in this subject?

0	1	2	3	4
none	very little	some	a good bit	very much

How much enjoyment do you get from reading about this subject?

0	1	2	3	4
none	very little	some	a good bit	very much

How much unrequired outside reading in this subject do you think you will do during the next few years?

0	1	2	3	4
none	very little	some	a good bit	very much

At this time how much help in the subject do you think you could give a student two grade levels below you?

0	1	2	3	4
none	very little	some	a good bit	very much

8. A questionnaire should be constructed to gather information from the parents related to the content-area reading program. A cover letter could begin with a statement such as: "We are interested in your information concerning how well your child reads and how interested he/she is in the various subject area classes." Questions corresponding to the first two below should be written to deal with each of the content areas. The same responses as

are used in the student questionnaire should be provided with each of these items. However, the last item should be scored in reverse with "very much" being zero and "none" being four. Total scores from pretesting could be compared with total scores from posttesting as a means of assessing the effectiveness of the program from the standpoint of the parents.

How much interest does he/she have in English? (Science, history, etc.)

0	1	2	3	4
none	very little	some	a good bit	very much

How much assistance do you have to give your child in the work he/she is assigned in English? (Science, history, etc.)

0	1	2	3	4
none	very little	some	a good bit	very much

How much unrequired outside reading does your child do on topics related to his school subjects?

0	1	2	3	4
none	very little	some	a good bit	very much

How much material does he/she have to read in school which you think is too difficult for him/her?

0	1	2	3	4
very much	a good bit	some	very little	none

G. Evaluating teacher competencies and recommending ways to correct deficiencies.

In order for an individual to be respected as an evaluator in the program, he/she must first demonstrate competence in instruction in content-area reading. One of the best ways of showing this expertise is by providing assistance during classroom visitations. This individual should acknowledge success and hard work where they are evidenced and should help teachers utilize their strengths and build upon existing practices. Efforts such as these to establish credibility and positive atmosphere are essential if the conflict between assistance and evaluation is to be avoided.

Any visit that is for the purpose of evaluation should have been announced as such well in advance. The criteria used in that evaluation should be clearly stated and should be as objective as possible. They should be based upon stated goals and policies and other information available to the teacher. They should assess the degree to which the teacher uses successfully the directed learning activity and the unit approach if they are part of the program. A checklist such as the one provided below should be available to the teacher from the time the program begins.

1. The teacher's instruction in the content area is clearly directed toward the achievement of specific unit and lesson objectives.

0	1	2	3	4
Never	Seldom	Sometimes	Most of the Time	Almost Always

2. The materials provided by the teacher for instruction in the content areas are written at the students' reading levels.

0	1	2	3	4
Never	Seldom	Sometime	Most of the Time	Almost Always

3. The teacher evaluates student performance based on lesson and unit objectives and makes changes in materials and procedures as indicated.

0	1	2	3	4
Never	Seldom	Sometimes	Most of the Time	Almost Always

4. The teacher uses a variety of materials, equipment, and activities to accommodate students with various learning styles and abilities.

0	1	2	3	4
Never	Seldom	Sometimes	Most of the Time	Almost Always

5. The teacher is aware of the specific reading skills in his/her content area and provides group and individual instruction in these skills.

0	1	2	3	4
Never	Seldom	Sometimes	Most of the Time	Almost Always

6. The teacher of the content area is aware of the special and technical vocabulary of that area and provides the necessary instruction to insure that students understand and learn that vocabulary.

0	1	2	3	4
Never	Seldom	Sometimes	Most of the Time	Almost Always

7. The materials and activities used by the content-area teacher are designed to capitalize on the needs, interests, and goals of individual students.

0	1	2	3	4
Never	Seldom	Sometimes	Most of the Time	Almost Always

8. The approaches used by the content-area teacher generate enjoyment of and enthusiasm for the classroom activities.

0	1	2	3	4
Never	Seldom	Sometimes	Most of the Time	Almost Always

- H. Making suggestions for changes in on-going content-area reading program.

The individual responsible for supervising the program should assess all formal and informal data gathered from the students, parents, and teachers as a basis for determining the need for changes in the program. Any changes suggested should be based upon the objectives of individual schools and the goals of the system-wide program. They should also reflect an awareness of what individual teachers have been able to accomplish and an estimation of what they can be expected to accomplish.

- I. Identifying and developing educational leadership for the content-area reading program.

The individual responsible for supervising the program should assess all formal evaluative data and should make informal observations with the aim of identifying teachers and other school personnel with potential for making greater contributions to the program. These prospective leaders could be involved in committee work, could be assigned to attend conferences, and could be delegated responsibilities such as demonstration teaching. System-level administrators should be kept informed of outstanding contributions such as these. This cultivation of leadership potential will make it more likely that there will be continuity and improvement in the content-area reading program.

Administering the System-Wide Content-Area Reading Program

A. Working with parents, teachers, and supervisors in the initial planning of the system-wide content-area reading program.

If a standing reading committee is in existence, it can serve at least in the early stages of development. Eventually the group that plans the program should represent a full cross-section of the views of parents, teachers, and supervisors. The individual who leads this group should build upon the ideas of staff members and try to use existing procedures as much as possible. To the extent that his/her recommendations reflect new approaches, he/she should offer evidence that they are working in situations similar to the system with which he is associated. If such evidence is not available, a pilot program might be planned for one school to attempt to generate support for a full scale effort. Once support has been developed, this committee should make an initial assessment, should formulate tentative goals, and should develop a working plan for the program. If an outside consultant is to be used in the later stages of planning, this group should generate expectations for his/her participation.

B. Seeking outside sources of funding for development and implementation of the content-area reading program.

The individual who is heading up the planning of the program should identify potential sources of funding and submit proposals for any financial support that might be available. These proposals should include requests for funds to cover planning time, outside consulting services, staff development time, professional and paraprofessional personnel, materials, equipment, and the cost of enrichment activities. The proposal should be read by several members of the committee who represent different perspectives to insure that all needs are met. The request for funds should be large enough to insure continuation of services, maintenance of equipment and resupply of materials.

C. Providing leadership and organizational expertise for the final planning of the content-area reading program.

When the system-wide director of the program knows what funds will be available, he/she should call together the committee that will develop the

final plans for the program. The tone of the meeting should be one in which all participants know that their ideas will be given full consideration. The director of the program should give a brief summary of the plans and decisions made during the initial planning session. He/she should give a detailed report on the funds available and any restrictions on their use. Funds available for additional professional and paraprofessional personnel should be emphasized. Also, he/she should let the committee know if funding will be renewable and should discuss the use of adult volunteers and student tutors in the program if they will be available. Such information should allay fears that school personnel will be overworked as a result of the demands of the program. Similarly, the members of the committee should be assured that planning time will be made available for their participation in the meetings and that those meetings will be scheduled at times acceptable to all members.

If an outside consultant is used, the committee should offer continual feedback regarding the appropriateness of the services he/she is providing. This is important so that the consultant will know what he/she should do to meet the expectations of the committee.

The director of the program should encourage the participation of all committee members in formulating the final plan for the program. However, he/she should offer feedback to the members regarding the organizational feasibility of their suggestions. The joint efforts of the administrative and instructional personnel should result in a series of program objectives that can be met in a realistic time frame. (Zalewski)

D. Assigning responsibilities for implementing the overall program.

The director of the program should develop a set of program responsibilities that are stated in unambiguous terms. With these in mind, he/she should make assignments based on demonstrated interest in the program and on evidence of enthusiasm for course content and of ability and willingness to make adjustments for individual differences. When additional responsibilities are given to an individual, he/she should be relieved of some previous responsibilities or should be given additional compensation. Once the assignments have been made the set of task descriptions and individuals responsible for performing those tasks should be circulated among

- all school personnel in the system. This will reduce conflicts regarding who is responsible for what and will help eliminate duplication of effort.

The director should also make certain that any outside consultants used with the program should be available on a continuing basis to assist in implementing the system-wide plan.

- E. Soliciting and responding to feedback from parents and other adults in the community.

The director should be prepared to discuss the need for and nature of the content-area reading program. He/she can take advantage of P.T.A. meetings, local civic meetings, and similar occasions to describe the program. A newsletter can be sent out describing how parents and other adults in the community can assist in making the program successful. If possible, local media exposure should be used to generate interest in the program. University personnel could be contacted to discuss ways in which they could use the program in their research and publishing efforts. (Criscuolo)

- F. Gathering informal information about the on-going program

The director should spend a day as a teacher in a content-area classroom to get a first-hand view of the demands on teachers and para-professionals and of the effects of the program on students. (Herman) He/she should get information through visitations and conversations with school personnel regarding the overall coordination of the program.

- G. Gathering formal data regarding the performance of supervisory and administrative personnel and the overall effectiveness of the program.

Each of the questionnaires provided below is designed for evaluating a certain area of the program. The responses to the questions should be "none," "very little," "some," "a good bit," "very much," and they should be scored zero to four. These questionnaires would be suitable for use at periodic intervals after the program has begun.

1. The following questionnaire would be used with teachers in evaluating the over-all program. Results from this questionnaire should be made available to principals, supervisors and administrators. The information gathered will most likely be helpful if the questionnaire is

administered anonymously. A copy of this questionnaire should be made available to each principal, supervisor, administrator, and support staff member so they will be aware of the areas in which they will be evaluated.

1. How much impact have you had on the way the program has been planned and implemented?

0	1	2	3	4
none	very little	some	a good bit	very much

2. How much information have you been able to obtain in the classroom regarding the abilities, interests, and needs of individual students?

0	1	2	3	4
none	very little	some	a good bit	very much

3. How much adjusting to individual differences has been possible in your classroom?

0	1	2	3	4
none	very little	some	a good bit	very much

4. How much of the time has it been possible for individual students in your classroom to be working in materials at their reading levels?

0	1	2	3	4
none	very little	some	a good bit	very much

5. How much improvement do you think there has been in student performance as a result of the implementation of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

6. How much help have paraprofessionals in your classroom given in the content-area reading program?

0	1	2	3	4
none	very little	some	a good bit	very much

7. How much help have adult volunteers in your classroom given in the content-area reading program?

0	1	2	3	4
none	very little	some	a good bit	very much

8. How much help have student tutors given in your classroom in the content-area reading program?

0	1	2	3	4
none	very little	some	a good bit	very much

9. How much range in reading levels has there been in the instructional materials provided for your classroom?

0	1	2	3	4
none	very little	some	a good bit	very much

10. How much diagnostic assistance have you been able to obtain from personnel within the school or at the system level?

0	1	2	3	4
none	very little	some	a good bit	very much

11. How much assistance in remedial instruction have you been able to obtain from personnel within the school or at the system level?

0	1	2	3	4
none	very little	some	a good bit	very much

12. How much support from the school-level director of the program have you been able to get when it has been needed?

0	1	2	3	4
none	very little	some	a good bit	very much

13. How much coordination of efforts in the program has been evident among teachers and other personnel within the school?

0	1	2	3	4
none	very little	some	a good bit	very much

14. How much help has been provided to you through in-service training?

0	1	2	3	4
none	very little	some	a good bit	very much

15. How much assistance and guidance have you gotten from personnel within the school and at the system level in your efforts to successfully implement the instructional program?

0	1	2	3	4
none	very little	some	a good bit	very much

16. How much objectivity has been evident in the evaluation of teacher competence?

0	1	2	3	4
none	very little	some	a good bit	very much

17. How much coordination has been evident in the system-wide administration and support of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

2. The questionnaire below would be used by administrators in evaluating principals and other directors of school-wide programs. The questionnaire should be available to the directors from the beginning of the program. Results from its administration should be distributed to them as well.

1. How much input has been provided by the school-level director for the planning and modification of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

2. How much initiative does the school-level director of the program show in meeting the needs of school personnel before they lead to problems?

0	1	2	3	4
none	very little	some	a good bit	very much

3. How much resourcefulness has the school-level director of the program shown in using existing materials, personnel, and community resources to meet immediate needs?

0	1	2	3	4
none	very little	some	a good bit	very much

4. How much leadership has been shown by the school-level director in generating interest in and support for the program among teachers, parents, and other members of the community?

0	1	2	3	4
none	very little	some	a good bit	very much

5. How much understanding of the abilities and interests of school personnel has been reflected in the assignments made by the school-level director of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

3. The following questionnaire would be used by administrators in evaluating supervisors. It should be available to the supervisors from the beginning of the program. Answers should be based on information received from other questionnaires, on student performance data, on evaluations by outside consultants, and on informal observations. Results from the questionnaire should be made available to supervisors.

1. How much expertise in instruction and curriculum design has been demonstrated by the supervisor in the planning and modification of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

2. How much awareness and efficiency have been demonstrated by the supervisor in the assessment of materials needs, the selection of materials for purchase, and the distribution of those materials to schools and classrooms?

0	1	2	3	4
none	very little	some	a good bit	very much

3. How much responsiveness and resourcefulness have been demonstrated by the supervisor in helping teachers and other school personnel meet the individual needs of students?

0	1	2	3	4
none	very little	some	a good bit	very much

4. How much accuracy and practicality have been demonstrated in the diagnostic services and recommendations of the staff members?

0	1	2	3	4
none	very little	some	a good bit	very much

5. How much objectivity and constructive guidance have been demonstrated by the supervisor in evaluating teachers and other school personnel?

0	1	2	3	4
none	very little	some	a good bit	very much

6. How much accuracy of judgment and success in the development of potential has the supervisor demonstrated in personnel matters?

0	1	2	3	4
none	very little	some	a good bit	very much

7. How much expertise has been demonstrated by the supervisor in developing reliable and valid instruments for evaluating the effectiveness of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

4. The questionnaire below should be given to all school personnel for evaluating the administrators of the program. The questionnaire is most likely to produce worth while information if it is administered anonymously. It should be available to administrators from the beginning of the program. The results should be available to administrators from the beginning of the program. The results should be available for examination by all school personnel and anyone else in the community.

1. How much leadership has been shown by the administrator in generating interest in and support for the content-area reading program among teachers, supervisors, parents, and other individuals in the district?

0	1	2	3	4
none	very little	some	a good bit	very much

2. How much initiative and persistence have been demonstrated by the administrator in seeking outside sources of funding for the program?

0	1	2	3	4
none	very little	some	a good bit	very much

3. How much organizational expertise has been provided by the administrator for the planning and modification of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

4. How much understanding of the abilities and interests of school personnel has been reflected in the assignments by the administrator for the implementation of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

5. How much expertise in organization and coordination has been evident in the system-wide administration of the program?

0	1	2	3	4
none	very little	some	a good bit	very much

6. How much firsthand understanding of the involvement in the classroom and school-level implementation of the program has been demonstrated by the administrator?

0	1	2	3	4
none	very little	some	a good bit	very much

7. How much skill in analyzing formal and informal evaluative data and in developing strategies for improving the program has been demonstrated by the administrator?

0	1	2	3	4
none	very little	some	a good bit	very much

- H. Interpreting formal and informal data in light of the goals and objectives of the program.

The system-level director of the program should use information from informal sources in guiding the analysis of formal data. However, he/she should not let preconceptions distort the evaluation of these data.

Informal and formal data should be organized and summarized so as to facilitate efforts to make necessary changes in the program. One approach would be to identify areas of strength and weakness.

The information gathered from the first year of the program should be used to guide only minor adjustments. Major adjustments based upon an over-all evaluation should come only after the program has been in operation two years.

I. Planning adjustments in the program to improve its effectiveness.

The reading committee should participate fully in the formulation of changes in the program. The director of the system-wide program should make all evaluative data available to members of the committee. Plans for adjustments should be designed so that they can be implemented with maximum efficiency and continuity.

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